



UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

B 1 3 2002

 EDWARDS & ANGELL LLP
 DIKE, BRONSTEIN, ROBERTS & CUSHMAN
 Patent and Trademark Office
 Washington, D.C. 20231
 www.uspto.gov

U.S. APPLICATION NUMBER NO.

09/582,397

FIRST NAMED APPLICANT

Shizuo Akira

ATTY. DOCKET NO.

49862

INTERNATIONAL APPLICATION NO.

PCT/JP99/05916

I.A. FILING DATE

10/26/1999

PRIORITY DATE

10/26/1998

 DIKE, BRONSTEIN, ROBERTS & CUSHMAN
 INTELLECTUAL PROPERTY PRACTICE GROUP
 P.O. BOX 9169
 EDWARDS, & ANGELL
 Boston, MA 02209

CONFIRMATION NO. 1566

371 FORMALITIES LETTER



OC000000007425293

Date Mailed: 02/07/2002

NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated Office (37 CFR 1.494):

- U.S. Basic National Fee
- Priority Document
- Assignee Statement
- Biochemical Sequence Diskette
- Biochemical Sequence Listing
- Claims
- Copy of references cited in ISR
- Copy of the International Application
- Copy of the International Search Report
- Drawings
- Information Disclosure Statements
- Initial Application Filing Fees
- Oath or Declaration
- Oath or Declaration
- Original Specification
- Request for Immediate Examination

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).

The following items **MUST** be furnished within the period set forth below:

- The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):
 - The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).
 - **APPLICANT MUST PROVIDE:**
 - An initial or substitute computer readable form (CRF) of the "Sequence Listing."
 - A statement that the contents of the paper or compact disc and the computer readable form are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b) or 1.825(d).

The following items **MUST** be furnished within the period set forth below:

- The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):
 - The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).
 - **APPLICANT MUST PROVIDE:**
 - An initial or substitute computer readable form (CRF) of the "Sequence Listing."
 - A statement that the contents of the paper or compact disc and the computer readable form are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b) or 1.825(d).
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
 - For Rules Interpretation, call (703) 308-4216
 - To Purchase PatentIn Software, call (703) 306-2600
 - For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
 - For Rules Interpretation, call (703) 308-4216
 - To Purchase PatentIn Software, call (703) 306-2600
 - For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov
- The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

PAULETTE R KIDW

Telephone: (703) 305-3656

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
09/582,397	PCT/JP99/05916	49862

FORM PCT/DO/EO/916 (371 Formalities Notice)

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 09/582397

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY P

- 1 ☐ **Wrapped Nucleics
Wrapped Aminos** The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to 3; this will prevent "wrapping."
- 2 ☐ **Invalid Line Length** The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 ☒ **Misaligned Amino
Numbering** The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 ☐ **Non-ASCII** The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 ☐ **Variable Length** Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 ☐ **PatentIn 2.0
"bug"** A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 ☐ **Skipped Sequences
(OLD RULES)** Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped.

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 ☐ **Skipped Sequences
(NEW RULES)** Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
<210> sequence id number
<400> sequence id number
000
- 9 ☐ **Use of n's or Xaa's
(NEW RULES)** Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 ☐ **Invalid <213>
Response** Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or Artificial Sequence.
- 11 ☐ **Use of <220>** Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 ☐ **PatentIn 2.0
"bug"** Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 ☐ **Misuse of n** n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/582,397

DATE: 11/14/2001
TIME: 14:17:30

Input Set : A:\49862seq.txt
Output Set: N:\CRF3\11142001\I582397.raw

3 <110> APPLICANT: Japan Science And Technology Corporation
5 <120> TITLE OF INVENTION: Identification of Novel Substrate I-TRAF of IKK-i Kinase
7 <130> FILE REFERENCE: JA901491
--> 9 <140> CURRENT APPLICATION NUMBER: US/09/582,397
--> 9 <141> CURRENT FILING DATE: 2001-10-09
--> 9 <160> NUMBER OF SEQ ID NOS: 4

Does Not Comply
Corrected Diskette Needed

ERRORS SEQUENCES

53 <210> SEQ ID NO: 2
54 <211> LENGTH: 486
55 <212> TYPE: PRT
56 <213> ORGANISM: Human
--> 57 <400> SEQUENCE: 2

58	Met	Gln	Ser	Thr	Ala	Asn	Tyr	Leu	Trp	His	Thr	Asp	Asp	Leu	Leu	15
59	Gly	Gln	Gly	Ala	Thr	Ala	Ser	Val	Tyr	Lys	Ala	Arg	Asn	Lys	Lys	30
60	Ser	Gly	Glu	Leu	Val	Ala	Val	Lys	Val	Phe	Asn	Thr	Thr	Ser	Tyr	45
61	Leu	Arg	Pro	Arg	Glu	Val	Gln	Val	Arg	Glu	Phe	Glu	Val	Leu	Arg	60
62	Lys	Leu	Asn	His	Gln	Asn	Ile	Val	Lys	Leu	Phe	Ala	Val	Glu	Glu	75
63	Thr	Gly	Gly	Ser	Arg	Gln	Lys	Val	Leu	Val	Met	Glu	Tyr	Cys	Ser	90
64	Ser	Gly	Ser	Leu	Leu	Ser	Val	Leu	Glu	Ser	Pro	Glu	Asn	Ala	Phe	105
65	Gly	Leu	Pro	Glu	Asp	Glu	Phe	Leu	Val	Val	Leu	Arg	Cys	Val	Val	120
66	Ala	Gly	Met	Asn	His	Leu	Arg	Glu	Asn	Gly	Ile	Val	His	Arg	Asp	135
67	Ile	Lys	Pro	Gly	Asn	Ile	Met	Arg	Leu	Val	Gly	Glu	Glu	Gly	Gln	150
68	Ser	Ile	Tyr	Lys	Leu	Thr	Asp	Phe	Gly	Ala	Ala	Arg	Glu	Leu	Asp	165
69	Asp	Asp	Glu	Lys	Phe	Val	Ser	Val	Tyr	Gly	Thr	Glu	Glu	Tyr	Leu	180
70	His	Pro	Asp	Met	Tyr	Glu	Arg	Ala	Val	Leu	Arg	Lys	Pro	Gln	Gln	195
71	Lys	Ala	Phe	Gly	Val	Thr	Val	Asp	Leu	Trp	Ser	Ile	Gly	Val	Thr	210
72	Leu	Tyr	His	Ala	Ala	Thr	Gly	Ser	Leu	Pro	Phe	Ile	Pro	Phe	Gly	225
73	Gly	Pro	Arg	Arg	Asn	Lys	Glu	Ile	Met	Tyr	Arg	Ile	Thr	Thr	Glu	240
74	Lys	Pro	Ala	Gly	Ala	Ile	Ala	Gly	Ala	Gln	Arg	Arg	Glu	Asn	Gly	255
75	Pro	Leu	Glu	Trp	Ser	Tyr	Thr	Leu	Pro	Ile	Thr	Cys	Gln	Leu	Ser	270
76	Leu	Gly	Leu	Gln	Ser	Gln	Leu	Val	Pro	Ile	Leu	Ala	Asn	Ile	Leu	285
77	Glu	Val	Glu	Gln	Ala	Lys	Cys	Trp	Gly	Phe	Asp	Gln	Phe	Phe	Ala	300
78	Glu	Thr	Ser	Asp	Ile	Leu	Gln	Arg	Val	Val	Val	His	Val	Phe	Ser	315
79	Leu	Ser	Gln	Ala	Val	Leu	His	His	Ile	Tyr	Ile	His	Ala	His	Asn	330
80	Thr	Ile	Ala	Ile	Phe	Gln	Glu	Ala	Val	His	Lys	Gln	Thr	Ser	Val	345
81	Ala	Pro	Arg	His	Gln	Glu	Tyr	Leu	Phe	Glu	Gly	His	Leu	Cys	Val	360
82	Leu	Glu	Pro	Ser	Val	Ser	Ala	Gln	His	Ile	Ala	His	Thr	Thr	Ala	375
83	Ser	Ser	Pro	Leu	Thr	Leu	Phe	Ser	Thr	Ala	Ile	Pro	Lys	Gly	Leu	390
84	Ala	Phe	Arg	Asp	Pro	Ala	Leu	Asp	Val	Pro	Lys	Phe	Val	Pro	Lys	405
85	Val	Asp	Leu	Gln	Ala	Asp	Tyr	Asn	Thr	Ala	Lys	Gly	Val	Leu	Gly	420
86	Ala	Gly	Tyr	Gln	Ala	Leu	Arg	Leu	Ala	Arg	Ala	Leu	Leu	Asp	Gly	435
87	Gln	Glu	Leu	Met	Phe	Arg	Gly	Leu	His	Trp	Val	Met	Glu	Val	Leu	450
88	Gln	Ala	Thr	Cys	Arg	Arg	Thr	Leu	Glu	Val	Ala	Arg	Thr	Ser	Leu	465
89	Leu	Tyr	Leu	Ser	Ser	Ser	Leu	Gly	Thr	Glu	Arg	Phe	Ser	Ser	Val	480

② See end of sequence error

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/582,397

DATE: 11/14/2001

TIME: 14:17:30

Input Set: \49862seq.txt

Output Set: N:\CRF3\11142001\I582397.raw

90 Ala Gly Thr Pro Glu Ile Gln Glu Leu Lys Ala Ala Ala Glu Leu 495
91 Arg Ser Arg Leu Arg Thr Leu Ala Glu Val Leu Ser Arg Cys Ser 510
92 Gln Asn Ile Thr Glu Thr Gln Glu Ser Leu Ser Ser Leu Asn Arg 525
93 Glu Leu Val Lys Ser Arg Asp Gln Val His Glu Asp Arg Ser Ile 540
94 Gln Gln Ile Gln Cys Cys Leu Asp Lys Met Asn Phe Ile Tyr Lys 555
95 Gln Phe Lys Lys Ser Arg Met Arg Pro Gly Leu Gly Tyr Asn Glu 570
96 Glu Gln Ile His Lys Leu Asp Lys Val Asn Phe Ser His Leu Ala 585
97 Lys Arg Leu Leu Gln Val Phe Gln Glu Glu Cys Val Gln Lys Tyr 600
98 Gln Ala Ser Leu Val Thr His Gly Lys Arg Met Arg Val Val His 615
99 Glu Thr Arg Asn His Leu Arg Leu Val Gly Cys Ser Val Ala Ala 630
100 Cys Asn Thr Glu Ala Gln Gly Val Gln Glu Ser Leu Ser Lys Leu 645
101 Leu Glu Glu Leu Ser His Gln Leu Leu Gln Asp Arg Ala Lys Gly 660
102 Ala Gln Ala Ser Pro Pro Pro Ile Ala Pro Tyr Pro Ser Pro Thr 675
103 Arg Lys Asp Leu Leu Leu His Met Gln Glu Leu Cys Glu Gly Met 690
104 Lys Leu Leu Ala Ser Asp Leu Leu Asp Asn Asn Arg Ile Ile Glu 705
--> 105 Arg Leu Asn Arg Val Pro Ala Pro Pro Asp Val *** 716

Delete
End of file
Invalid
columns

align
end of line
number

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/582,397

DATE: 11/14/2001

TIME: 14:17:31

Input Set \49862seq.txt

Output Set: N:\CRF3\11142001\I582397.raw

:9 M:270 C: Current Application Number differs, Replaced Current Application No
:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
:15 M:283 W: Missing Blank Line separator, <400> field identifier
:57 M:283 W: Missing Blank Line separator, <400> field identifier
:105 M:252 E: No. of Seq. differs, <211>LENGTH:Input:716 Found:0 SEQ:2
:111 M:283 W: Missing Blank Line separator, <400> field identifier
:166 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:167 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:168 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:169 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:170 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:171 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:172 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:173 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:174 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:175 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:176 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:177 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:178 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:179 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:180 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:181 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:182 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:183 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:184 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:185 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:186 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:187 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:188 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:189 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:190 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:191 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:192 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:193 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:194 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:195 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:196 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:197 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:198 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:199 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:200 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:201 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:202 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:203 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:204 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:205 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:206 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:207 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/582,397

DATE: 11/14/2001

TIME: 14:17:31

Input Set : \49862seq.txt

Output Set: N:\CRF3\11142001\I582397.raw

:208 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:209 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:210 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:211 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:212 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:213 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:215 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
:9 M:203 E: No. of Seq. differs, <160> Number Of Sequences:Input (4) Counted (3)

STATISTICS SUMMARY

PATENT APPLICATION: US/09/582,397

DATE: 11/14/2001

TIME: 14:17:31

Input Set : \49862seq.txt

Output Set: N:\CRF3\11142001\I582397.raw

Application Serial Number: US/09/582,397

Alpha or Numeric: Numeric

Application Class:

Application File Date: 10-09-2001

Unit: PCT09

Software Application:

Total Number of Sequences: 3

Total Nucleotides: 5064

Total Amino Acids: 0

Number of Errors: 2

Number of Warnings: 52

Number of Corrections: 2

MESSAGE SUMMARY

03 E: 1 (No. of Seq. differs)

02 E: 1 (No. of Seq. differs)

09 W: 49 (Allowed number of lines exceeded)

00 C: 1 (Current Application Number differs)

01 C: 1 (Current Filing Date differs)

03 W: 3 (Missing Blank Line separator)